

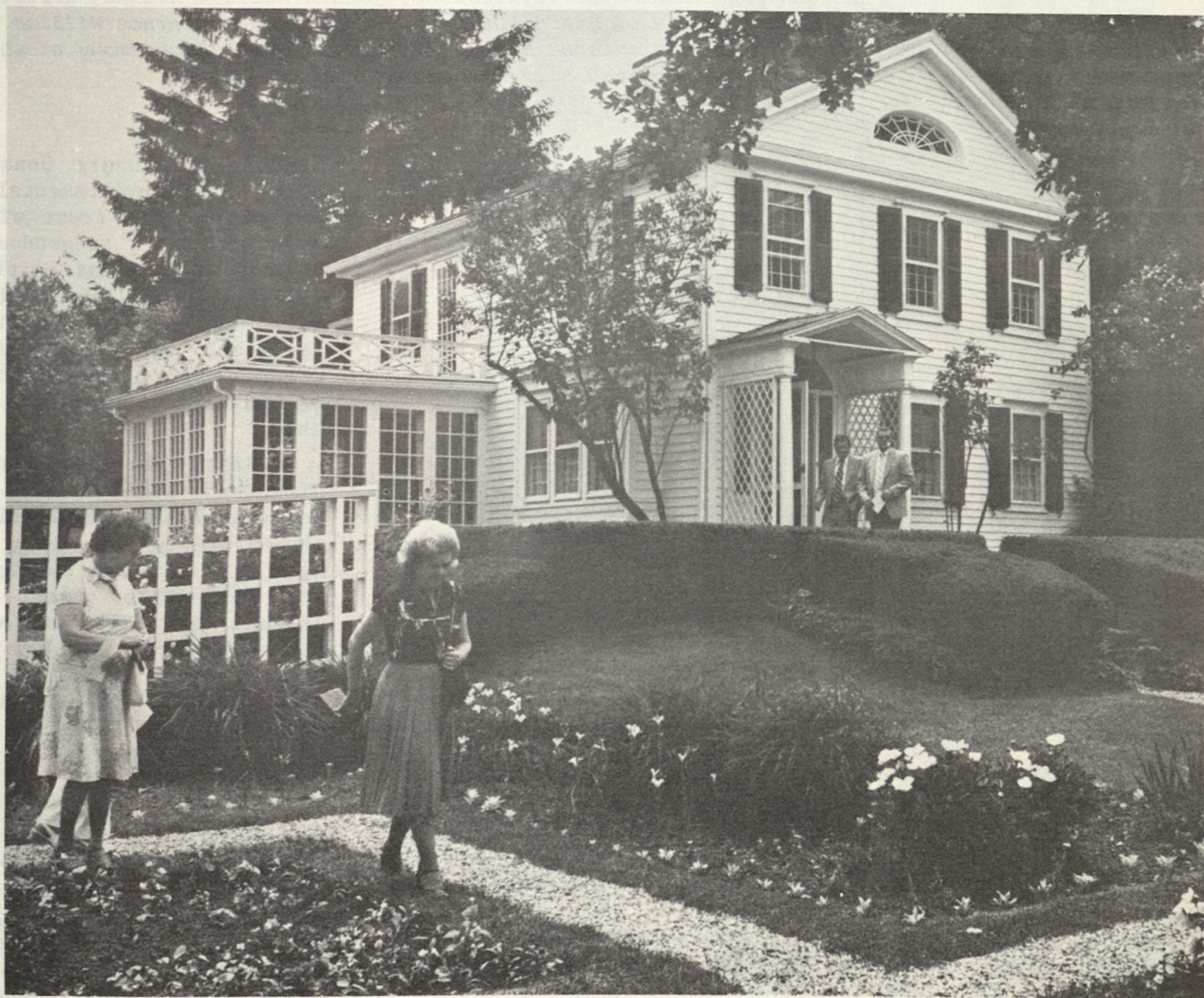
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Citizens' Bulletin

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Handsome homestead added to Osbornedale State Park



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Cover Photo: Kellogg homestead, Osbornedale State Park

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Lori Blados

Attorney Laura Donahue and Mrs. Audrey Heusser, trustees of the Frances Osborne Kellogg estate, joined William Miller, director of DEP's Office of State Parks and Recreation, Governor William O'Neill, and DEP Commissioner Stanley J. Pac at June 16 ceremony at which the Governor accepted title to the Kellogg homestead.

Governor accepts Kellogg homestead

By John Waters

Osbornedale State Park along the Housatonic River in Derby is well known to nature lovers, ice skaters, skiers, tobogganists, and sledders. Its 350 acres have been open to the public since it was acquired in the Fifties. Not so for the eight adjoining acres where stands the handsome homestead of Frances Eliza (Osborne) Kellogg, who willed it to the State, but with certain restrictions that continued in force until June of this year.

On June 16, Governor William A. O'Neill accepted title to the property and to a trust fund for its upkeep and development which Mrs. Kellogg established. Responding to the presentation by trustees Audrey

Heusser and Laura Donahue, he said: "The environmental center for which this trust will provide will be a tremendous asset to the region and particularly to the local school children. Mrs. Kellogg was an extremely generous and public-spirited woman. Her gifts to the State of Connecticut have been invaluable."

State Parks & Recreation Director William F. Miller pointed out it was fitting that the property was being turned over to the State during Governor O'Neill's term because "since his days as a state representative, he has been a friend of the State Park Program and sympathetic to our needs and proposals to provide better service in parks to our citizens."

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Photo courtesy Derby Neck Library

Frances Eliza Osborne, about 1892.

Fannie

Bossy Victorian teenager became
millionaire industrialist, gave
State lovely Osbornedale Park

By John Waters

One April day in 1893, a Derby businessman opened a letter from his 16-year-old daughter, who was visiting relatives in New York City. It read:

Dear Papa and Mama: I was very mad when I heard that Hart's rabbits are eating up my garden. I won't allow them to do it. I will write to him that I will shoot the rabbits when I get home. If Hart won't shut them up, get John to shoot them. I think it is hard to try to raise flowers and then have Hart's rabbits finish them. Maybe Hart thinks we like rabbits. If so, he is mistaken. I will have no rabbits around. I will buy rat poison for Hart's rabbits unless he keeps them at home. Write, by return mail, and tell me if there is no way to save the hyacinths.

Love to all,
Fannie Osborne

Her father, Wilbur F. Osborne, answered promptly:

My dear Fannie: I thought, at Aunt Jenny's you will acquire all the gentle graces. But here you write, 'Shoot Hart's rabbits. Tell John to shoot them. Poison Hart's rabbits. If you don't kill Hart's rabbits, I will.'

Now, that is the Osborne way, but it is not the best way, nor is it neighborly. It certainly is not scriptured, for if rabbits eat your tulips, you are commanded to let them also eat hyacinths or some such doctrine.

Now Aunt Jenny's way would be to send over to Hart a few hyacinths and tell Mrs. Hart we would have been glad to have sent more but the rabbits eat so many, we only had a few left. We might even request them to raise more (rabbits), as they looked so pretty on our lawn. They were so much prettier than the flowers they were accustomed to eat.

At any rate, we will look after the rabbits, but we are not going to make eternal enemies for the sake of a few flowers, when God gives us so many and

spangles the hills and valleys with them without our asking. His are the flowers. We are the rabbits and, if we pick a few, we don't want some Brownie to shoot or poison us.

A park is born

It is ironic that the land this vehement virgin was defending from ravenous rabbits is now a beautifully situated conservation center and State Park. And Fannie's low flashpoint when people didn't want to do things her way is the reason Osbornedale is a State Park and not a town park. What happened is part of the story of a strong-minded, unpredictable woman who -- in an era when only the lowliest of jobs were open to females -- owned or directed one English and five American companies so successfully that when she died at the age of 80 she left about four million 1956 dollars to Wesleyan University, the University of Connecticut, Cornell University, the Connecticut Forest & Park Association, churches and other charities, as well as to relatives, friends, employees, and business associates.

The Fannie to whom her father's little sermon was addressed was Frances Eliza Osborne. Her father was Major Wilbur F. Osborne, a Wesleyan valedictorian and a veteran of the Civil War, at the end of which he returned to Derby and took a job with the family manufacturing business, Osborne & Cheesman Company.

Founded by his father and uncle, Osborne & Cheesman produced hoop skirts, suspenders, and woven tape for skirts. He succeeded his father as president and later became president of the Schneller Stay Works of Ansonia, the Connecticut Clasp Company of Bridgeport, and the Union Fabric Company.

Tragedy

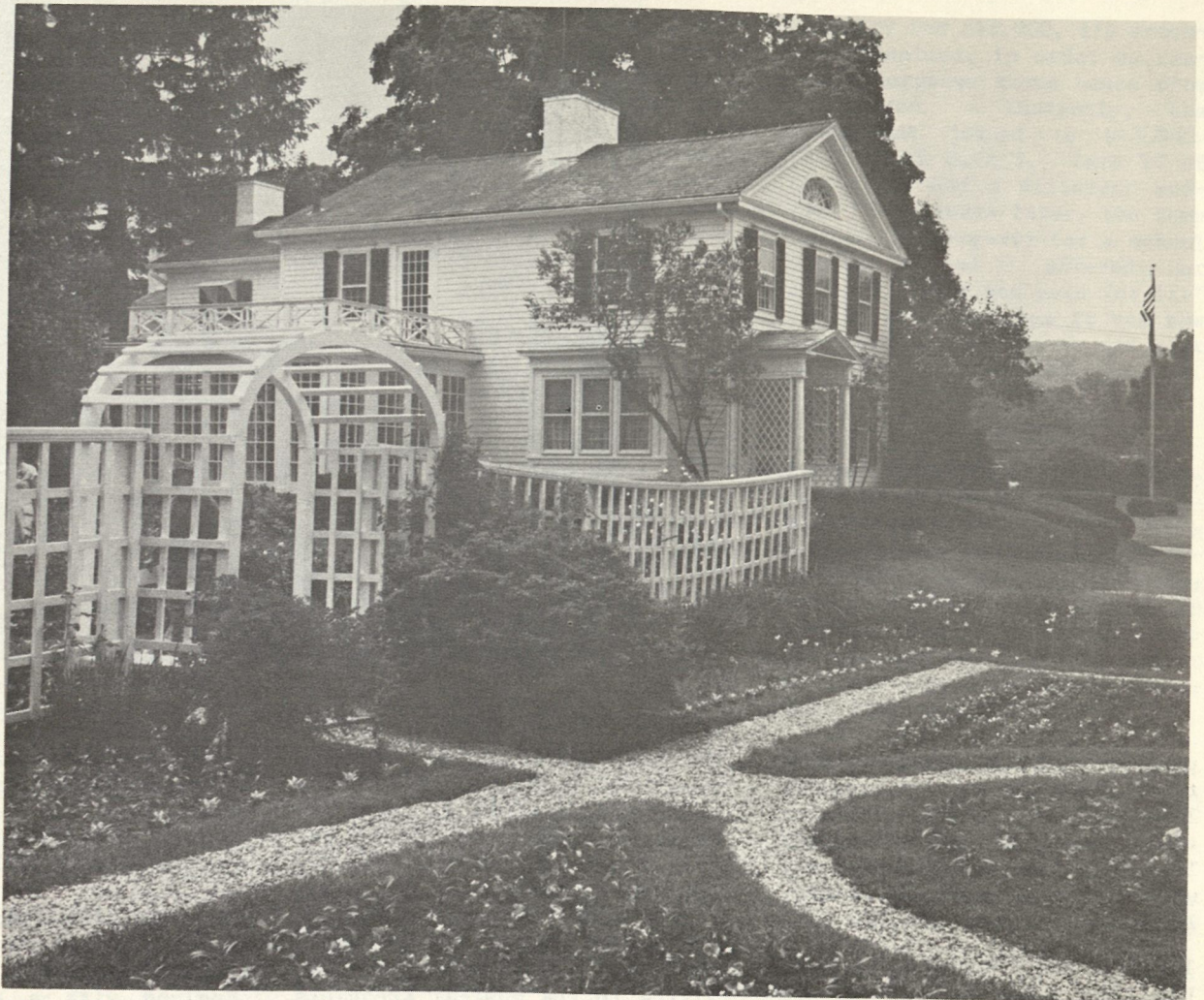
Wilbur's favorite sister and Fannie's favorite Aunt Nelly was Mrs. Henry Krehbiel, wife of the New York "Tribune's" famous music critic. It was while visiting them in early April of 1893 that Fannie suffered an

accident which almost certainly altered her nature and attitude toward life. She and her cousin Helen Krehbiel apparently were imitating a dance involving a waving of handkerchiefs, which they had seen at one of the theatres. Suddenly Fannie felt pain in one eye. Apparently a needle had caught on one of the handkerchiefs, which flicked it into her eye. Although treated by the best ophthalmologist in New York, she lost just short of all the sight of the eye and had to wear blue lenses to shield her good eye -- a bitter tragedy for a girl just turned seventeen. She had to remain in New York for treatments until June.

Her father wrote to her almost daily because, in 1893, few people had telephones. (The first telephone exchange in America had opened only five years before, in New Haven). For him, 1893 was a bad time. He was suffering from a cold which would not go away, and for which Mrs. Krehbiel, in all seriousness, strongly recommended "Hazard's Ferro-Phosphated Elixir of Calisaya Bark" as a good tonic, adding, "You can get it with strychnine if you need that element, but I prefer it without."

Worse yet, he had to put the Osborne & Cheesman Company through a reorganization in the worldwide Panic of '93, during which 500 American banks and 15,000 businesses failed, 4,000,000 Americans were out of work, and there was frantic run on gold at the U.S. Treasury.

For some reason, perhaps because he detected a degree of business sense in Fannie despite her childish outburst about rabbits, he wrote her in considerable detail how his two partners -- angry because he had refused to make a three-way split of Osborne & Cheesman assets that would have enriched them all -- had tried to do him out of the profits from the Union Fabric Mill. Instead, he told Fannie, he had insisted upon paying 55 cents on the dollar to the company's creditors and investors. This was strong meat for a 17-year-old girl, but it may have contributed to her real-



*The eight acres, adjoining Osbornedale State Park, where Frances Osborne Kellogg's home-
stead stands were turned over to the State of Connecticut in June along with a trust
fund for development of a new environmental center on the property.*

istic approach to business dealings in later years.

Fannie's business sense revealed itself in a letter she sent him in April:

I want to earn some money this summer so that I can help pay the doctor's bills but cannot think of any way. I have been thinking of chickens. You and I can go shares; you furnish the capital and the daily expenses, and I will take care of them and also get half. John Cullen could sell the eggs, and we could give him one percent a dozen. In this way we might make a good deal.

Her father's answer is not recorded; but judging from another letter to her, she apparently had proposed still

another deal, this one involving her giving up candy in order to save money. Her father's reply: "That was quite a good business calculation on your part -- that as the doctor's bills would be very heavy, you would save on candy this summer, when you know that candy makes you sick, and you don't eat twenty-five cents worth a year. Don't worry about bills."

Bossy

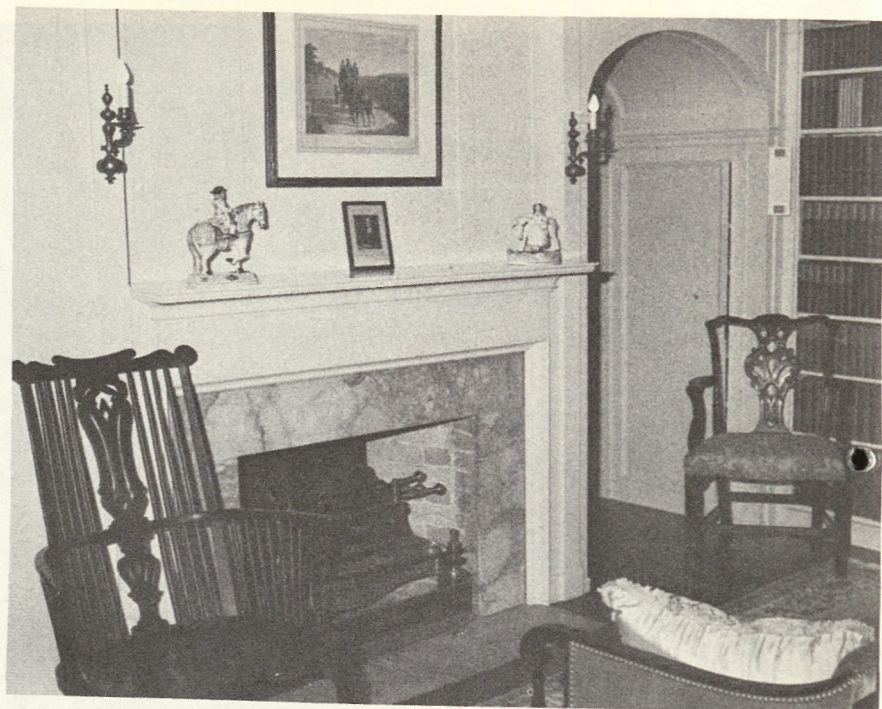
Still in New York, she sent her mother orders concerning an eagle that had established residence on their Derby farm. "Dear Mama," she wrote, "I am glad there is an eagle on the farm. Don't let anyone kill it. Uncle Harry says there is a law against killing eagles.

Don't cut down any trees I bought."

Her father's needling answer to this bossy letter was: "Your orders to preserve the eagle to hand. But what we are trying to do is preserve the chickens. Had you not better issue a proclamation to the eagle, warning him to desist from seizing and carrying off John's hens?"

Fannie's bossiness probably stemmed from the fact that she was the only one of three children who did not die in childhood and so was treated almost as a divine being by parents, grandparents, uncles, and aunts. This characteristic persisted into later life and resulted in her blowing her stack when crossed or when businessmen who had extended credit asked for

According to long-range plans approved by the trustees of the estate, the homestead will be maintained to show as nearly as possible the way it looked during Mrs. Kellogg's lifetime.



payment within a reasonable time. Slow payment was a corollary of her policy of never taking money out of principal. Tradesmen were expected to wait until enough interest accumulated to pay them.

Interest was always on her mind. When the national D.A.R. asked local D.A.R. members to buy its interest-bearing bonds to provide funds for building Constitution Hall in Washington, it urged them to mail their checks immediately, which most of them were quite willing to do. But not Fannie, who was chairman of the Constitution Hall Committee! She got up and pointed out that the bonds would not start to pay interest until July 1 -- and since it was now only June, there was no reason why the national D.A.R. should have the use of the money interest-free for almost a month.

Musical

After returning to Derby, young Fannie did not resume formal schooling. She did keep up her violin studies and even taught for a while, inspired perhaps by the fact that her Revolutionary War grandfather, her father, and her Aunt Nelly were able musicians. Some of her pupils became noted violinists.

For many years, during the Metropolitan Opera season in New York, Fannie would go there by train on Friday to attend the Friday evening and the Saturday matinee performances, and then return home for another week of business. Her love for opera developed as a result of her visits to the musical Krehbiels when she was in her teens.

To promote music closer to home, she started the Derby Choral Club in 1901 and built it up to a membership of 250 singers. The only qualification for membership was ability to sing well, a criterion that put the noses of some unmusical local socialites out of joint when Fannie refused to accept them.

Woman's work

Fannie was 31 when her father died in 1907, just as his business ventures were becoming more profitable. His executors informed her and her mother that they would be able to live in modest comfort for the rest of their lives if the proceeds of selling her father's businesses were conservatively invested. To their astonishment, Fannie announced that the businesses weren't going to be sold; they

were going to be run by Frances Eliza Osborne. . .and that was that!

Steels and busks

Run them she did, with an iron hand, for 49 years. She was also a director of a company in England with a name that not even her contemporaries Gilbert and Sullivan could have topped. It was "Steels & Busks Limited." If you are wondering whether a Mr. Steels and a Mr. Busks were partners in the enterprise, you haven't done your homework in the weighty "Oxford English Dictionary," which gives us these definitions:

STEEL: A strip of steel used to give stiffness or support, or to expand a dress. (1608)

BUSK: A strip of wood, whalebone, steel, etc., passed down the front of a corset to stiffen and support it. Applied dialectically to the whole corset.

Her investment in this company, which proved to be extremely profitable, made sense because several of her American companies were also making products that contributed stability and

impregnability to the awesome infra-structure of Victorian woman. They made hoops for hoopskirts, hose supporters, corset stays, clasps, fabrics, suspenders, and woven tapes.

Running Derby

In addition to running her businesses, Fannie ran almost everything else in or near Derby. She became the first female bank director in Connecticut, serving on the board of the local national bank. She also served as a trustee of Griffin Hospital in Derby; as assistant treasurer of the District Nurse Association; and as vice-president of the Connecticut Forest and Park Association.

As if that were not enough to keep her busy, she arranged weekly musical programs for the Derby Methodist Church, directed the affairs of the Derby Neck Library, which her father had founded and for which he obtained funds from Steel Magnate Andrew Carnegie. She was the first woman on the Derby Board of Education. She served on the Derby Board of Zoning Appeals, was an officer of the Connecticut Jersey Cattle Club and of the American Holstein-Friesian Association.

Star trek

As president, for 20 years, of the Woman's Club of Ansonia, Derby, and Shelton, she adorned its programs with personal appearances of such celebrities Amelia Earhart, Edna St. Vincent Millay, Cornelia Otis Skinner, symphony conductor Sir Thomas Beecham, sopranos Lotte Lehmann and Marjorie Lawrence, pianist Jose Iturbi, Negro composer Henry Burleigh, baritones John Charles Thomas and John Brownlee of the Metropolitan Opera Company, and drama critic John Mason Brown.

"Bobbin"

When Fannie was at the autograph-collecting stage, her uncle -- music critic Henry

Krehbiel-- used his considerable influence in New York to round up celebrities' signatures (including P.T. Barnum's) for "Bobbin." That was a pet name her father had given her when she was little because, he said, he had never seen anything move faster except the bobbins on his textile machinery. Doting Uncle Krehbiel always called her Bobbin too.

What Fannie wants . . .

Although Fannie and her father had done much in a public-spirited way for Derby, the town fathers, in 1951, ungratefully decided to plant a low-cost public housing project on several acres of Osborne meadowland directly across from her house. Fannie did not approve of developing the meadows, so she offered to provide an even larger plot a short distance away and not visible from the homestead. The offer was turned down, with talk of condemning the property, perhaps to scare her into complying.

When she was sure that a public domain action was imminent, she summoned her lawyer and asked how fast he could draw up a legal instrument deeding the entire 350 acres to the State of Connecticut for a State park. He answered with action, handing her the deed for signature that same afternoon. Since it had been widely assumed that she would leave her property to the town for a park, her end run was less than popular locally, which bothered Fannie not at all.

Ripoff

Fannie's delay in getting around to marrying may have stemmed from a dislike for men. She may have thought that the executors who had recommended the sale of her father's businesses were not entirely disinterested. She had also found men prejudiced against a woman in business, and apparently some had tried to bilk her.

For example, despite her earned reputation for shrewdness, the local assessors tried to fleece her. She had bought a piece of

property for \$15,000, its assessed valuation, in order to rescue a handsome stone house from demolition. Instantly, the assessment jumped to \$40,000. Thus ended Part I. Part II of the story had a different ending. Some years later, the town wanted the property for a school project -- and offered her \$15,000, "what you paid for it." Fannie reminded them it was now assessed at \$40,000 -- and that was the price. She got it.

A thousand times no!

In any event, she made a practice of saying no to any proposition presented to her, even though -- a short time later -- she might reverse herself. This technique helped to brush off people trying to "take" her because she was a woman, and it gave her more time to think over bona fide propositions.

Unfortunately, this "no" stragem earned her a reputation as a Hard-Hearted Hannah, but her closest friend knew that she very quietly helped good people with medical expenses and also sent several deserving young people to college. When she discovered that her veterinarian aspired to become an obstetrician, she helped him to get his degree; and he was so grateful that even after he had an obstetrics practice, he still took care of her cattle. And although she was an Episcopalian, she left a Roman Catholic church in Derby \$2,500 as a trust fund, specifying that the net income from it be used annually in the Christmas season for the benefit of the poor of the parish.

Bells

The circumstances of her 1919 marriage to 49-year-old Waldo Stewart Kellogg, whom she had known for several years, are not available. He was a Cornell graduate in architecture, and during World War I he had supervised construction of war buildings around Bordeaux, France. After the war, he helped the French with reconstruction. As a wedding present, Fannie's employees gave her a most unusual gift -- a loving cup!

Perhaps letters or diaries that might have provided more information about their relationship went up in flames when Fannie died. She had ordered that anything and everything in her handwriting be burned immediately after her death. Her grounds superintendent, used to obeying orders promptly, burned them right after the funeral.

Of mice and . . .

Where, then, did the letters we have quoted from Fannie to her father come from? They came from a barrel found in the attic, years later, in the course of a clean-up. The barrel seemed to be full of mouse-eaten jacquard tapestries. It was on the point of being thrown out when Audrey E. Heusser, long-time friend and confidante of Fannie, pulled out the tapestries and uncovered half a barrelful of family letters and manuscripts, some going back to 1859. There were dozens in Fannie's handwriting.

The letters now appear in a delightful privately printed book, "An Osborne Treasury," edited by Ann M. Prokop and Evelyn R. Slezak and published by the Frances O. Kellogg Estate in 1981.

Moo!

Fannie's father had owned cattle, but it was not until Fannie and Kellogg were married that cattle-raising became the major activity at Osbornedale. Kellogg was so interested in breeding cattle that Osbornedale maintained two separate herds: one of Holstein-Friesians, the other Jerseys.

Their herdsman, Hans Jensen, recalls that although the Holsteins were milked as often as three times a day, they were raised not as milk producers but as show cattle that were supposed to win -- and did win -- cabinetfuls of silver trophies not only in New England but at shows as far away as St. Louis and Canada.

The Jerseys, which were primarily milk producers, were

raised with as much care and became the nucleus of a thriving milk and dairy products business at Osbornedale. Jensen would get to the dairy barns at 4 a.m. and work until 7 p.m., when he milked them. Sunday was his day of rest: he worked only eight hours instead of fifteen. In addition, it was he who chaperoned the Holsteins when they toured the show circuit.

Apparently, Fannie's temper tantrums didn't cow him (if you'll pardon the expression). He told about walking into her kitchen one day when she was spewing fire and brimstone about some tradesman who had the temerity to send her a bill for three dollars that she owed him. After listening to the tirade for a while, Jensen calmly remarked that he couldn't understand why she didn't have enough money to pay the bill. That cooled her off, and she was affable for the rest of the day.

Working widow

Waldo Kellogg died suddenly in the tenth year of their marriage, when Fannie was 52. She continued to run the family enterprises and the dairy farm until she died at 80, in 1956. During her last few years, she worked at home instead of in her office at the Kelly Company, where she customarily had worn a black taffeta apron. Until the last two months of her life, she worked a 16-hour day.

Homes for her help

In deeding her property to the State, Fannie had retained life use of it. She also specified that, after her death, her bookkeeper, Eva A. Little, and another woman employee could occupy the homestead as long as they lived or as long as they cared to stay there, with all taxes and maintenance paid by the executors of her will. Other employees were given life use of other houses on the estate. This meant that the State could not have the use of the homestead and the other houses until the last survivor died or moved away. Miss Little, the last, lasted quite a

while, living to be 101 before she died in 1976.

Trust fund for park

The will also required that, within three years of the time the homestead was vacated, the State submit to the trustees a plan for the physical development of the park and an explanation of the kinds of recreational, cultural, and environmental activities it would provide for the public. To help operate the park as a conservation center, Fannie set up a trust fund that now provides about \$150,000 a year.

State now owns all

The staff of the Office of State Parks & Recreation submitted the required comprehensive plan, and the trustees approved it in 1981. This year on June 16, at a ceremony in the park, the directors -- Mrs. Audrey Heusser and Attorney Laura Donahue and representatives of Colonial Bank -- handed Governor O'Neill the deed that turns the homestead over to the State, thereby paving the way for the developments the plan proposed.

Briefly, these include preserving the homestead building and its gardens and erecting an educational Environmental Center open to the public.

In retrospect

Looking back over Fannie's career, we have seen how the bossy young woman who out-McGregored Mr. McGregor in declaring war on the descendants of Flopsy, Mopsy, Cottontail, and Peter became, over the years, an ardent conservationist and, dying, left an awesome amount of money to help temper the tempers of the bunny-blitzers of later generations. ■

Letters and excerpts of letters of Frances Osborne and Wilbur F. Osborne are reprinted from "An Osborne Treasury" by permission.

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CAM NEWS



The June flood caused shorefront damage in Old Lyme.

Flooding... the next time

The flooding that swept through Connecticut this past June was caused by heavy rainfall and swollen rivers, so it was officially a "riverine" and not a "coastal" flood. Even so, estimates of more than \$100 million in damage were reported from 16 shoreline communities. Six federal disaster centers were set up in the southern part of the state and over three thousand requests for flood relief were received in just a few days' time.

Floods are expensive for everyone.

Because parts of Connecticut were declared disaster areas, the federal government will pay for 75 percent of the

cost of rebuilding damaged public property. Governor O'Neill has requested \$37 million in state bonding to cover additional repairs, to establish a low-interest loan program to rebuild damaged homes, and to provide other vital relief measures. Individual property owners may deduct flood losses from their income tax returns, and some of the more fortunate and far-sighted residents were covered by flood insurance. But even the availability of all of this aid may be small consolation to the uprooted family whose home and belongings have been destroyed.

A few months have gone by, and those who are concerned about protecting Connecticut's

vulnerable coastal resources need to be asking some serious questions: What has been done to reduce the damage and the expense caused by erosion and flooding in the coastal area? And what still needs to be done?

Many property owners have built seawalls, groins, and jetties in front of their lands in an effort to prevent flooding and reduce erosion. These structures may be effective against moderate flooding but are usually powerless against a major coastal flood, with its heavy rains, high winds, and waves.

As part of the National Flood Insurance Program, the federal government has mapped the flood hazard areas in all coastal communities. In order to make federally subsidized flood insurance available to property owners, all Connecticut

By Frank Disbrow,
DEP Conservation Education/Firearms Safety Coordinator

Bow hunting

Challenging despite modern equipment and techniques

Long before Christopher Columbus, Miles Standish, and Captain Benjamin Church traveled the New World, indigenous deer and turkey populations were harvested using the bow and arrow. The unmistakable shape of a flint arrowhead is recognizable to all. The knapping of rock into projectile points goes back hundreds of thousands of years into man's history. The skills necessary to shape bows of wood and sinew, to knap stone, to true an arrow shaft of wood, to attach feather with pine rosin and sinew are now mostly mysteries to modern man. But mastering the flight of an arrow is a skill that's alive and growing.

The modern bow hunter is a resplendent stalker of the whitetailed deer and the wild turkey. The bow of today has undergone many modifications. The path of bow evolution is marked with lamination, arrow rests, recurves, sight windows, fiberglass, aluminum, magnesium, cables, pulleys, eccentrics, and even telescopic sights. One thing has not changed. A person still, after all these years, must hold the bow in one hand at arm's length and aim the arrow most carefully before and during the time the arrow is released



Leonard Lee Rue III

This camouflaged bow hunter uses a modern compound bow from a tree stand. Missing from the picture is the recommended safety harness!

by the other hand. Sounds easy? It is not! However, after months or years of practice, a skilled bow hunter can consistently place arrow after arrow into a paper-plate-sized target at any distance up to 30 yards.

The modern hunting arrow is a very precise shaft of wood, fiberglass, aluminum, or graphite. The consistency from arrow to arrow is remarkable. The reason for this consistency is that all the arrows of a set must fly to the target exactly the same. For accurate shooting, always purchase the best arrows possible. The broadhead hunting point has progressed from stone to stainless steel, and the number of cutting edges from two to as many as five. The arrow harvests game by hemorrhage. The degree of hemorrhage is directly related to the sharpness and the number of edges available on the broadhead. The other major change in arrows is the exchange of feathers in many cases for plastic vanes. Humidity does not change the flight characteristics of plastic, whereas wet feathers drastically affect an arrow's flight.

Many, many other products have been developed to assist the bowhunter. The development of color camouflage in many patterns and color combinations helps the hunter to blend into the flora of his hunting area. The tree stand has revolutionized hunting deer. The tree stand allows the hunter a greater area of vision and places him above the normal line of sight of a whitetail. Special care must be observed when placing a stand or climbing with a stand. Also, be sure that you secure yourself with a safety line to the tree when you are in the stand. Your safety line is your life line. It will protect you from possible injury if you lean out too far from the tree, the stand comes loose suddenly, or you fall asleep.

The Department of Environmental Protection's Wildlife Bureau has two course offerings for the bowhunter. The basic Conservation Education/Firearms

Safety course includes one hour of training in introductory bow hunting along with 11 other interesting and educational topics. The Advanced Bowhunting program is four jam-packed hours of classroom work followed by two hours of field experience. The fifteen major topics of the classroom portion are:

- * Your responsibilities as a bowhunter
- * How an arrow harvests game
- * The unwritten law of the bowhunter
- * Bowhunting methods
- * Bowhunting safety
- * Sharpening and/or proper use of replaceable blades in broadheads
- * Adequate equipment, with emphasis on matched equipment
- * The importance of limiting the length of your shot
- * How to practice
- * Knowing the vital organs of your animal and picking a good spot at which to shoot
- * Blade injuries, first aid, and survival
- * Reading signs
- * Game trailing
- * Field dressing and proper care of your game
- * Discussion of sources of equipment for bowhunting

The field experience ranges from using proper equipment to the following of a realistic blood trail. How about the use of climbing blocks and tree stands or the sharpening of broadheads as a learning experience? Each participant also gets to use his/her hunting equipment to shoot at a life-sized deer target. You will not find a bull's-eye on this target, just as a white-tailed deer comes without an aiming spot.

Bowhunting is a rapidly growing outdoor activity. People of all ages and sizes are becoming proficient at this challenging activity. And, men, do not believe for a second that that lady next to you cannot be as good or better "Robin Hood" than you.

Please remember, safety and responsibility are the mark of all sportsmen and sportswomen. For the next bowhunter class in your area, call DEP at Litchfield at 567-8998, Hartford at 566-4683, or Franklin at 642-7239. ■

Sour situation From page 15

of the public, is opposed to any relaxation of current air pollution laws. As Louis Harris states: "This message on the deep desire on the part of the American people to battle pollution is one of the most overwhelming and clearest we have ever recorded in our 25 years of surveying public opinion." It is hoped that this keen interest on the part of the American people will ultimately force legislators not only to leave the Clean Air Act viable but to strengthen its power to clean up the environment.

The environmental implications of increased acid rain are not good. Possible health hazards associated with acid rain cause reason for even greater alarm. As has been shown, economic payoffs for addressing this problem are substantial. Acid rain must not be looked at as an isolated problem but as one major example of the pressures man is putting on the environment which he lives in and depends upon. Continued degradation of our environment is not something we can passively accept but rather it is a situation we must combat in as rational a way as possible.

Eric Jay Dolin served as an intern in Senator Lowell Weicker's office during a leave from his studies at Brown University in Providence. He is a resident of Stamford. ■

Acid rain

"Imported" pollution plays big part in State's air problems

By Leonard Bruckman,
Director, DEP Air Compliance Unit

During the spring, one of six hearings on the topic of acid rain was held at the State Capitol in Hartford. These hearings, sponsored by the New England Congressional Caucus, were held in New England states to gather data from state government and industry officials on the effects of acid rain in our region.

The Congressional Caucus intends to try to develop a unified regional position, using the information gathered from the hearings, and it plans to prepare a provision on acid rain to be added to legislation reauthorizing the Clean Air Act.

Among those testifying at the State Capitol hearing were officials from the State Department of Environmental Protection, American Lung Association of Connecticut, Connecticut Audubon Society, Connecticut Business and Industry Association, as well as Congressional and legislative representatives.

The following testimony was submitted by Leonard Bruckman, Director of the DEP Air Compliance Unit. In his testimony Bruckman discusses the environmental and economic effects of acid rain in our State as well as the steps which can be taken by our representatives in Washington to address the issue.

The impact on air quality in Connecticut attributable to the long-distance transport of air pollutants across geo-

political boundaries has been a topic of great concern to this state for some time. It is widely acknowledged that background pollution levels are much higher in the Eastern United States than in the western part of the nation. This is due to the steady build-up of pollution in the large air masses that travel from west to east across the United States.

Connecticut is in much the same situation as a city at the mouth of a river. Such a city must cope with all the pollution discharged into the river upstream of it. This river-mouth city's problem is greatest if the most massive discharge occurs just upstream. Connecticut is "downstream" from most of the United States, and the largest area-wide source of air pollution in this nation, the New York City - Northern New Jersey urban complex, is located just a few miles to our southwest.

This "imported" air pollution has a devastating effect on air quality here in Connecticut. The state is "non-attainment" with respect to the National Ambient Air Quality Standards for total suspended particulates and ozone. For these criteria pollutants transport can account for up to 70 percent of the pollution measured here on certain days. The National Commission on Air Quality concluded that ozone levels in Connecticut could exceed the federal health

ceilings even if this state were "shut down," due to the transport of pollution generated by our neighboring states.

Not only is the health and welfare of Connecticut residents being directly affected but more stringent regulatory programs have been imposed on business and industry here in a fruitless attempt to clean up pollution generated outside of this state. Needless to say, this approach is neither cost-effective for our citizenry, nor has it been successful in solving pollution problems.

We realize that the subject of this hearing is acid rain. However, acid rain is only another manifestation of this same "transport problem" discussed above, the effects of which we have been experiencing for some time. "Acid rain" is an atmospheric phenomenon that occurs when sulfur dioxide, and to a lesser extent nitrogen oxide, emissions combine with moisture in the air to produce precipitation that contains sulfuric and nitric acids. The primary emitters of these precursor pollutants are fuel-burning sources, primarily utilities, especially those that are coal-fired, and industrial sources.

Although Connecticut recently changed its sulfur-fuel limit from 0.5 percent sulfur to 1.0 percent, the latter standard is still the strictest statewide limit in the

Measuring acid rain

The acidity of any solution, including rain or snow, is measured on a scale known as a pH scale. This scale is numbered from 0 to 14. A pH value of 7 is neutral, neither acidic nor alkaline. Values lower than 7 are more acidic--vinegar, for instance, with a pH of between 2.4 and 3.4. Values above 7, such as for ammonia or lye, represent alkalinity.

The pH scale is a logarithmic measure, that is, each change of one pH unit--say from 6 to 5--represents a tenfold increase in acidity. Thus a drop from pH 6 to pH 4 represents a hundredfold increase and drop from pH 6 to pH 3 represents a thousandfold increase in acidity.

For rain or snow, acidity measurements reflect the balance of positive and negative ions in the precipitation. The ions can come from a variety of compounds or elements (sulfur and nitrogen oxides, hydrogen, carbon oxides, chlorine, etc.); thus the total acidity of precipitation must take into account all of the sources of ions.

The pH scale

The pH ("potential hydrogen") scale is a measure of hydrogen ion concentration. Hydrogen ions have a positive electrical charge and are called cations; ions with a negative electrical charge are known as anions. A substance containing equal concentrations of cations and anions so that the elec-

trical charges balance is neutral and has a pH of 7.

However, a substance with more hydrogen ions than anions is acidic and has a pH less than 7; substances with more anions than cations are alkaline and have pH measures above 7. Thus, as the concentration of hydrogen ions increases, the pH decreases. But the pH scale says nothing about whether the cations or anions are from natural or manmade sources; a hydrogen ion from an industrial smokestack measures the same on the scale as a hydrogen ion from natural minerals.

Remember

The lower the pH value, the higher the acid content. Each full pH unit drop represents a tenfold increase in acidity.

"Pure" rain

"Pure" rain is defined as rain with a pH of between 5.6 and 5.7. These pH values take into consideration the amount of acidity created by the reaction of rainwater with normal levels of atmospheric carbon dioxide. But the acid precipitation that is of concern is that rain (or snow, sleet, or hail) with a pH of 5.6 or below.

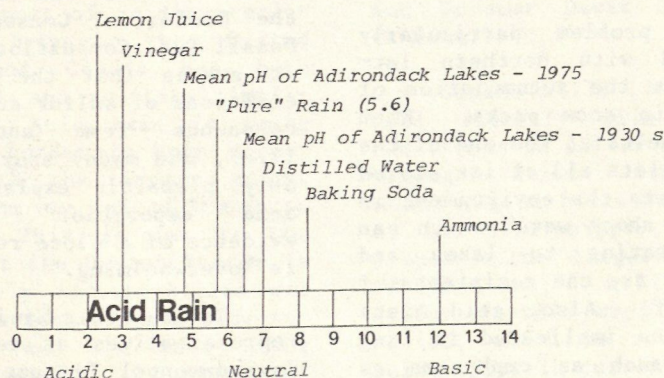
This concern with acid rain is not without good reason. Recent research shows that the average precipitation in most states east of the Mississippi River lies between pH 4 and 5, with individual storms having pH values well below these averages.

nation. Other states, especially Midwestern states, have sulfur limits that are 10 to 20 times higher than those allowed here. The situation is compounded by the fact that these states have many individual sources, a single one of which emits far more than all the utilities, businesses, and industries, located in Connecticut combined.

In order to solve local pollution problems resulting from these extraordinarily high emission levels, Midwestern utilities built huge chimneys to pump this pollution high into the atmosphere. These "tall stacks" did improve air quality locally but only at the expense of downwind states like Connecticut. The air pollutants these stacks emit "ride the pollution express," the large air masses that make-up our weather systems, to the Northeast where they finally fall back to earth as acid rain.

The presence of acid rain and particulate pollutants is causing the accelerated weathering of buildings and monumental stone and metals, as well as the deterioration of mortar, concrete, textiles, paper, paint, and leather. Degradation of material objects in the eastern U.S. results in an estimated \$13 billion loss annually, according to the Northeast Damage Report of the Long Range Transport and Deposition of Air Pollutants prepared for the Northeast States for Coordinated Air Use Management (NESCAUM) and the New England Interstate Water Pollution Control Commission (NEIWPCC) by the Northeast Regional Task Force on Atmospheric Deposition.

The effect that acid rain has on receiving water bodies in the Northeast varies from state to state depending on local soil and water conditions. Certain soils and receiving bodies have an ability to neutralize these acids -- a so-called buffering capacity. However, those mountain streams and lakes located in Vermont, Maine, New Hampshire, and upper New York State have little buffering capacity. Many of these receiving bodies are now fishless and have



Acid rain

Problem that's also political hot potato, international issue

By Eric Jay Dolin

The latest fad in Washington is said to be acid rain umbrellas, which supposedly protect you from acidic precipitation. Unfortunately, unlike fads which come and go, the problem of acid precipitation, as satirized by this foul weather gear, is one that is growing worse and shows no signs of abating.

Acid rain is a catchall phrase for any precipitation, either wet or dry in nature, that has a pH of 5.6 or below on the pH scale. It is not just a regional problem but a global one. In fact it has placed a strain on our relations with our neighbor to the north, Canada. Many lakes in Canada and the United States are now devoid of most higher forms of animal life due to acidic precipitation, and many more are in imminent danger. The dollar value of the damage caused is already quite high, as is evidenced by the fact that the annual costs of sulfur dioxide emissions, a precursor of acid rain, in Europe--due to their destructive effects on crops, materials, and aquatic ecosystems--can be as high as \$20.3 billion.

The problem is becoming well known but the solution is not evident and that is what is making for lively and often heated debate concerning acid precipitation in Washington

where Congress has been attempting to re-authorize the Clean Air Act.

Acid rain causes numerous problems. Acid rains leach valuable minerals and mobilize toxic metals in the soil such as aluminum, copper, and lead. Excessive aluminum levels in lakes and streams are especially hazardous to fish. Through bioaccumulation, toxic metals can become highly concentrated in our food chain and can pose a serious health hazard. In addition, acidic waters transported through metal pipes can corrode those pipes, causing toxic metals to go into solution and come out of the tap in our drinking water.

Acidic influx into bodies of water can increase the level of methyl mercury in fish which in turn can be quite harmful to humans.

One problem particularly associated with northern latitudes is the accumulation of acid within snow packs. When the snow melts at the end of the winter it lets all of its stored up acid into the environment in one "acid shock wave" which can be devastating to lakes and ponds that are the recipients of the runoff. Also, acid mists may even be implicated in lung problems such as emphysema as well as certain heart ailments.

One other deleterious effect of acid rain is the accelerated corrosion and degradation of structures and materials such as buildings, monuments, and car finishes. A good example of this is the east face of the Capitol Building in Washington which has numerous craters that have been caused by acidic rains. Monuments that have survived for 2,000 years are now undergoing rapid corrosion, a large measure of which is probably attributable to acid rain.

Almost all of the scientific evidence amassed shows a direct correlation between sulfur dioxide and nitrogen oxide emissions, coming mainly from utilities and industry and automobiles, and acid precipitation. The National Academy of Sciences, in October 1981, issued a report entitled "Atmosphere-Biosphere Interactions: Toward a Better Understanding of the Ecological Consequences of Fossil Fuel Combustion" in which it states that the "increased emissions of sulfur and nitrogen compounds from anthropogenic (i.e., man made) sources is the only plausible explanation for acid deposition" and that evidence of a close relationship is "overwhelming."

On the other hand, industry representatives as well as the Environmental Protection Agency feel that more studies are

needed to establish a more substantial correlation between emissions and acid precipitation. They also feel that the cost of further emissions reductions as well as the economic dislocation caused by switching to low sulfur fuels is too great. It is true that industry and utilities, especially coal-burning Midwestern power plants, will have to pay, perhaps substantially, for the clean-up of their emissions, but these costs are not excessive when considering that people are already paying a high price for acid rain damage in both tangible effects such as crop damage and in intangible, aesthetic ways.

Emission reductions will decrease the financial burden being placed on the recipients of the pollution--including Connecticut and other New England States--and put it where it belongs, with the sources that are creating the problem. Failure to act now on this problem through the reduction of both sulfur dioxide and nitrogen oxide emissions will immeasurably increase the toll, both financial and intangible, on us and on future generations.

Rhode Island is considered one of 15 states that are "extremely vulnerable" to the debilitating effects of acid rain, according to a recent study by the National Wildlife Federation. According to the same study, Rhode Island's rainfall averages 4.4 on the pH scale. It is interesting to note that many fish species die at pH levels between 4.5 and 5.0.

The problem of interboundary transport of acidic precipitation between the United States and Canada has both ecological and political implications. Acid rain is going over the border in both directions with the larger amount moving from the United States to Canada. This is due to the facts that the United States is more highly industrialized and the air patterns in the midwestern U.S. and the Ohio River Valley, where emissions of sulfur dioxides (SO_2) and

nitrogen oxides (NO_x) are at their worst, flow north and northeastward.

The people of Canada are very worried about this situation as is evidenced by the fact that at each meeting between Canadian Prime Minister Pierre Trudeau and President Reagan, Trudeau has placed discussion about acid rain first on the agenda. Up to 48,000 lakes in Canada are considered in imminent danger due to acidification. Many polluters in Canada are decreasing emissions rates, and the government is moving ever faster to alleviate the problem through legislation.

On August 5, 1980 the "Memorandum of Intent between the Government of Canada and the Government of the United States concerning Transboundary Air Pollution" was signed. In effect it showed the desire of both countries to go beyond lip service to the problem and form intercountry research groups to address the issue and come up with possible solutions to it.

The Clean Air Act is presently up before Congress for re-authorization, and as a result the debate over whether emissions standards should be relaxed or tightened has come to the fore. Three bills have been proposed in the Senate which attempt to deal effectively with acid rain and air pollutant transport. They are: Senate Bill 1706 (S. 1706) sponsored by Senator George Mitchell (D-Maine) and co-sponsored by Senator Lowell Weicker (R-CT); S. 1709 sponsored by Senator Daniel Moynihan (D-N.Y.); and S. 1718 sponsored by Senator Christopher Dodd (D-CT) and Senator David Durenberger (R-Minn.).

Senate bills 1706 and 1709 deal directly with emissions reductions of sulfur dioxide and nitrogen oxides within a 31-state region bordering and east of the Mississippi. S. 1706 proposes the largest reduction of emissions, 10 million tons of sulfur dioxide over a 10 year period, which is roughly a 45 percent cut in current emissions rates. Both S. 1706 and S. 1709

allow for a trading system where nitrogen oxide reductions can be traded for sulfur dioxide reductions using the ratio of two units by weight nitrogen oxide to one unit sulfur dioxide. States within this "acid deposition impact region" can barter emission reductions just as long as combined regional reductions are in accordance with statutory guidelines.

Senate bill 1718 deals directly with interstate pollution. It is a needed mechanism whereby the states can have an easier time proving and redressing the negative effects interstate imports have on air quality.

A good example of the problems caused by interstate transport of pollutants is the following: The Connecticut State Department of Environmental Protection estimates that emissions from the Northport and Port Jefferson power plants, located on Long Island, are greater than the emissions of all Connecticut fuel-burning sources even after Connecticut's sulfur-in-fuel requirements were raised to 1.0 percent.

The three bills as contained in the Clean Air Act are slowly being marked up before the Senate Committee on Environment and Public Works and perhaps will not see the Senate floor for some time. Part of the reason for this delay is due to the complexity of the Act but another reason is much more political in nature. Some of the Democrats on the Hill, in both the House and Senate, see the Clean Air Act as well as other environmental issues as good ammunition to use against the Republicans in the 1982 election campaigns. So it is to their advantage to keep the Clean Air Act re-authorization in limbo and available as a campaign issue. Although this technique may be useful in getting more pro-environment Democrats into Congress, it is unfortunate that the Clean Air Act is being used as a political football.

A Harris Poll taken in September 1981 shows that a convincing majority, 80 percent

Botanizing...

The plants on Apple Road

By G. Winston Carter

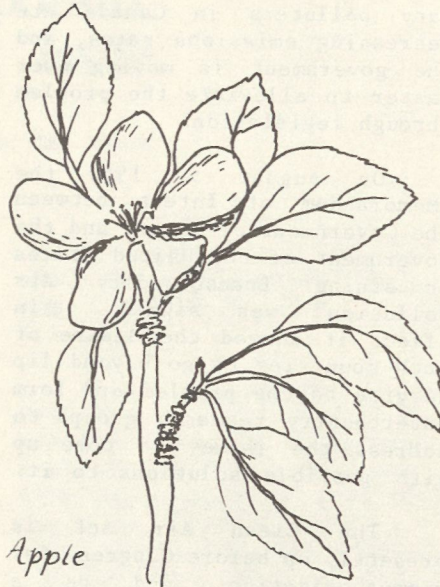
Illustrations by Pamela Carter

The famous Harvard scholar Louis Agassiz was an early student of the environment. He was once quoted as saying, "I spent the summer traveling. I got halfway across my backyard."

Every suburban community has its interesting islands and patches of green where you can study the native vegetation near at hand. This is the case on Apple Road, which is a short connector road between two streets. It is probably not more than 300 yards in length, but here I have enjoyed many hours of botanizing.

I have asked myself what it is about this road that makes it so intriguing botanically. Perhaps it is the variety of habitats found there and the relatively recent history of the area. Up to the 1960s, the surrounding land was an apple orchard. There is telltale evidence of this from the occasional apple or pear tree that has been left by the developers. This lends a certain charm as the apple and pear tree leaves and pinkish flowers emerge from their winter buds each spring. They are practically identical in the way that they produce spur shoots from which the flowers, and eventually the fruit, form. Only in the nature of the fruit is one plant much different from the other.

Since new houses have been built, the land has been managed in a variety of ways. Some lawns are covered with ornamental trees and shrubs. On one lot a wooded area has been left as part of the landscaping. Another is planted with weeping willows which were later replaced by spruce trees to hold the soil around a pond. An



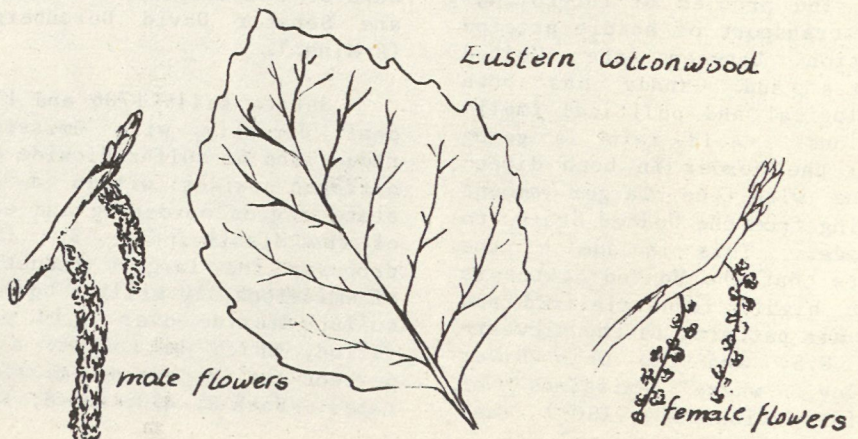
Apple

unmanaged lot that has been left to return to nature is the most interesting botanically. This spot and a patch of staghorn sumac (*Rhus typhina*) are two good examples of nature's successional process. These places are occupied by sun-loving plants which have invaded these areas when they were left untouched by man. The gutters along the road and the edges of lawns could easily go unobserved. Here grow some of the

smaller but none the less intriguing plants. With the help of a hand lens these inconspicuous plants reveal many fascinating details.

I take many walks along this road, so although the plants remain the same, they are often in different stages of development. As I start my walk the first plant that I notice is a common roadside plant, the white campion, or evening lychnis (*Lychnis alba*). *Lychnis* is the Greek name for "lamp," implying that the flower has a glowing appearance. This is not true of this particular species but it is true of a related species . . . the Maltese Cross, or scarlet lychnis. An interesting feature of this plant is that the sexes are separate. They are in two households, so to speak. The female flower with its five-part style is on one plant, and usually close by, on a different plant, is the male flower with its many stamens.

As I continue along the road the small white-petaled flowers of the multiflora rose (*Rosa multiflora*) catch my eye. Heavy curved thorns and an



Eastern Cottonwood

male flowers

female flowers

arching growth pattern characterize this shrub. The hips of this plant contain a lot of vitamin C and are considered a wild edible.

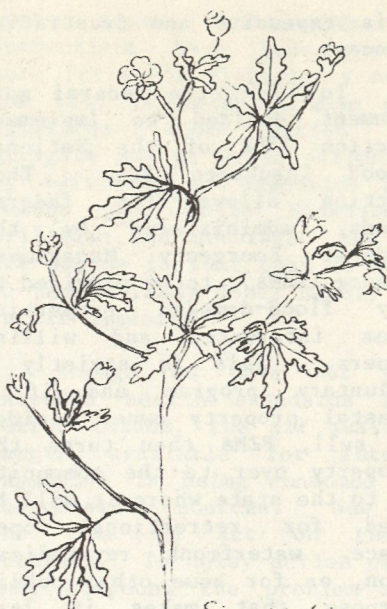
Forming a considerable stand above the multiflora rose is the staghorn sumac with its characteristic red fruit and its velvet stems which represent this year's growth. Sumacs are sun-loving and early pioneers in spots that are left undisturbed by man. They quickly move in and take over.

Beyond the clump of sumac, branches of an Eastern cottonwood (Populus deltoides) extend slightly out into the street. This tree is commonly found on wet bottom land, but it occasionally shows up as a street tree. Its conspicuous sticky winter buds and dangling catkins are dominant features, and when the fruit of the tree releases its seeds there is a burst of cotton-like material, the reason for its common name.

In a yard a short distance further along there is a pear tree growing. Beautiful in flower and fruit, it is a reminder of the original orchard that included quite a section of this area.

The end of the road is near, and the dominant plant life at present is the many spruce trees that have been planted along one side of a pond. It is along this stretch that my attention turns to some of the grasses that grow along the road near the curb. To understand grasses you need to learn a new set of terms to describe their parts and need a hand lens to observe the details, particularly the flower. During the fall, both crabgrass (Digitaria sp.) and the fall panic grass (Panicum dichotomiflorum) are in flower. They are probably discounted as weeds, but if you are looking for beauty of detail and form, they offer material for closer examination.

It is now time to double back and see what there is on the other side of the road. Along the curb, dangling slightly over the edge, I notice



Silvery Cinquefoil

a cinquefoil, the silvery cinquefoil (Potentilla argentea), with its five-petaled, yellow flower and its white woolly leaves. This is a common place to find it growing.

The vacant lot which has been allowed to go back to nature is on this side of the road. It is amazing to see the variety of plant life in such a small area. The predominant plant here is the quaking aspen (Populus tremuloides), commonly referred to as poplar or popple. It is a common pioneer plant on what is sometimes referred to as post-agricultural land. It takes over cut-over or burned-over areas rather quickly.

It has light seeds of a cotton-like substance, seeds that can travel long distances. This quality and the fact that this is a sun-loving tree are factors that make it possible for aspens to compete favorably for their place in the sun. The leaves of quaking aspens have stems, or petioles, that are flattened. This is a characteristic of all aspens, more or less, but particularly so in this species which has rather small, oval-teethed leaves.

This plant was one of the species that the early herb

doctors looked to for help. As part of their belief in the "Doctrine of the Signatures," they saw the leaves of popple trembling even with the slightest breeze and they concluded that it must be good for palsy.

Parts of this lot seem to have rather poor soil as seems indicated by great masses of the beautiful pink-earth lichen (Bacamycas roseus). Here and there a patch of British soldiers lichen (Cladonia cristatella) is present along with a small type of haircap moss, the bristle-leaved haircap (Polypodium piliferum) with its transparent or whitish-looking awn, a bristle-like extension of the leaves.

Clumps of sweet fern (Comptonia peregrina) also present are indicative of the same type of environment. This is not a true fern but a shrub with fern-like leaves. Opinion varies as to the pleasantness of the odor of its leaves. Those who used them for pillows in the past must have thought most people would enjoy it.

One of the most beautiful of the pioneer trees that take over land that is left unoccupied and undeveloped is the black locust (Robinia pseudo-acacia). It first became established in Southern states in the Appalachians but has since become naturalized and is now considered a pioneer plant in

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Black Locust

Kellogg homestead

From page 2

According to long-range plans developed by the Office of State Parks & Recreation and approved by trustees of the estate, the homestead will be maintained to show as nearly as possible the way it looked when Mrs. Kellogg was alive. Her lovely gardens will be preserved for all to enjoy.

Immediately south of the homestead, a new structure will house the environmental center. Managed by a full-time director, the center will develop educational programs available to schools, organizations, and members of the general public. A large area for special exhibits of public interest, classrooms, a library-and-conference room, a workshop, and a darkroom will be included in the center. Present estimates are that the first steps in the development of the environmental center will be completed in about 18 months. Future facilities will include a parking area and an amphitheatre.

Flooding

From page 9

coastal towns have now passed at least minimum flood plan management regulations. These require that all new and improved buildings be evaluated or "flood-proofed" to or above the level of the "one percent" or "hundred year" flood (defined as an event, similar to the one in June, that has a one percent chance of occurring each year). This level ranges between 11 and 13 feet above mean sea level for coastal waterfront property in Connecticut.

But what about the coastal property owner who is caught in the cycle of having his or her property damaged, then rebuilding it at both personal and government expense, only to have it damaged again in another flood? There is a way to stop

this expensive and frustrating process.

In 1979, the federal government decided to implement Section 1362 of the National Flood Insurance Act. This section allows for federal funds, administered by the Federal Emergency Management Agency (FEMA), to be provided to buy flood-damaged properties from interested and willing owners. This is strictly a voluntary program and if a coastal property owner decides to sell, FEMA then turns the property over to the community or to the state where it will be used for recreational open space, waterfront revitalization, or for some other public purpose that makes it less vulnerable to damage from flooding.

Everyone benefits. The homeowner, who might not otherwise find a buyer for the property, can move to safer land. The community enhances its open space and reduces the risk of future flood damage. And the taxpayer saves money in the long run, since federal and state costs for disaster aid are lowered.

The coastal property must meet certain criteria in order to be eligible for this flood assistance program. It must, for instance, be located in a flood risk area and be covered by federal flood insurance. The land must also qualify under one of several so-called "damage criteria" described in the guidelines of the program. And, of course, there must be adequate federal funds available to finance the program.

It is just now, when most of the flood damage has been cleared away, that we might be tempted to put the June disaster behind us: It couldn't possibly happen to me, we think. But coastal Connecticut is a desirable and yet a fragile parcel of land to live on, and the Section 1362 program for land acquisition is being explored by the DEP as a means of preparing for and recovering from coastal flooding in a way that also brings positive community changes.

Importing bad air

From page 13

undergone other significant and perhaps irreversible ecological changes.

One must understand that the receiving bodies here in Connecticut, which have not yet been adversely affected due to a greater natural buffering capacity, will eventually run out of this neutralizing capability. One could think of this problem as walking toward the edge of a cliff. You have plenty of time to turn back before disaster strikes, heeding the shouts of warning from your friends, but once you step over the edge. . . . Well, our friends in Northern New England are shouting warnings and hopefully we will be able to avert disaster by taking action today.

But what can Connecticut do? We can continue to be a role model for the rest of the nation to follow in cleaning up the environment. We could have avoided pollution control efforts here by blaming our entire pollution problem on out-of-state sources, but we didn't. We have identified the portion of the air pollution problem attributable to in-state sources and have successfully implemented and enforced the necessary regulatory programs with the assistance of a responsible industrial community. But only federal legislation and federal EPA enforcement actions can cure our "out-of-state ills," and acid rain is one such pollution problem.

The Clean Air Act is up for reauthorization and despite the substantial efforts of Connecticut's Congressional delegation, especially Congressman Moffet and Senator Dodd, the current bills to amend the Act in both the House (i.e., the Lukens-Dingell Bill, HR 5252) and the Senate (i.e., the Byrd, S 2266, and Riegle, S 2307, bills) would result in a significant weakening of our nation's clean air efforts. But, as bad as these bills are for the provisions

they contain, the areas that aren't addressed, such as toxic air pollutants, interstate transport, and acid rain, are potentially more damaging to Connecticut's air quality.

Further compounding the problem is the necessity to convert oil-fired power plants to coal to lower our dependency on imported oil. This is a laudable goal which should be accomplished as soon as possible, but not at the expense of our environment. Coal is an extraordinary source of air pollution unless the proper air pollution controls are applied. Oil-fired power plants can be converted to coal, the proper air pollution controls can be installed, and the resulting costs will be less than those incurred using imported oil. If coal conversions are implemented without requiring air pollution controls, the resulting impact on Connecticut's air quality will be devastating, further aggravating our acid rain problem.

Consequently, we would urge that you support legislative initiatives that would facilitate coal conversions but only if air pollution controls are required.

Many responsible governmental bodies and legislators have offered proposals that, if adopted, would curb interstate air pollution and acid rain now. We urge you to actively support Congressman Waxman's proposed bill in its original form (HR 5555, which incorporated Congressman Moffet's acid rain bill) and its counterpart in the Senate offered by Senator Mitchell (S 1706). Similar proposals to curb acid rain-related air pollution were offered by Senator Stafford.

It is imperative to realize that our State is bearing an undue economic hardship due to EPA's inconsistent and inequitable administration of the Clean Air Act and their failure to address the interstate pollutant transport problem in any meaningful way. Utilities in the Midwest boast in advertisements that electricity there

costs less. Consumers in Connecticut have been paying more for their electricity over the last 10 years because our utilities took action to mitigate sulfur oxide pollution by switching to expensive low sulfur oil while Midwestern utilities did nothing. All we are asking is that they do what we have already done, hardly an unfair demand.

Though we have not yet exceeded health standards for sulfur oxides, the air quality margin available for future expansion is being consumed by out-of-state sources. Now is the time to act on these problems. To delay action will only compound the problem and make the solution that much more difficult. ■

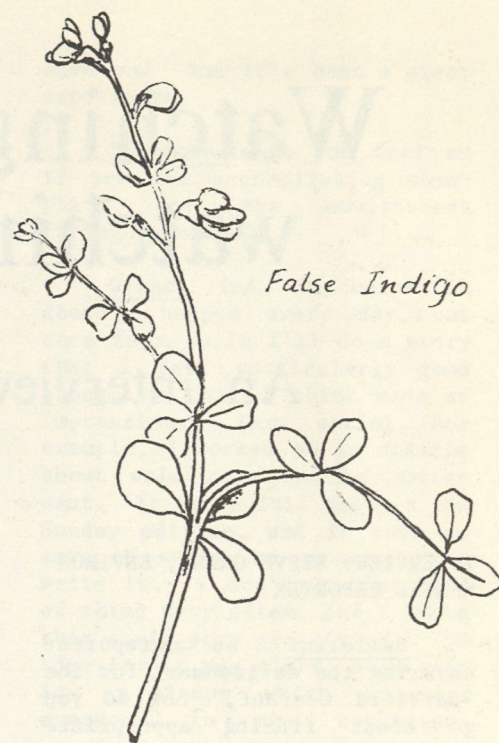
Apple Road

From page 17

New England. It has as many as a dozen small leaflets to its compound leaves and its beautiful pea-like blossoms flower from May to June. It is a legume which has nitrogen-fixing bacteria on its roots which help to enrich the soil. Its wood is especially hard and could be used for many purposes if it were not for the locust borer beetle that damages much of the wood. As it is, it is used for such things as fence posts and railroad ties because of its resistance to decay.

The attractive wild indigo (*Batista tinctoria*), another legume, grows near the locust. This plant bears yellow blossoms in June, and the leaves turn black in the fall. The fruits that form are small pods that rattle. The plant is sometimes called rattleweed for this reason. Wild indigo was once used as an inferior substitute for the true indigo plant which is also a legume.

The unused lot seems to have its share of legumes. Besides black locust and wild indigo there is bush clover (*Lespedeza capitata*) and a small-leaved type of tick trefoil (*Desmodium* sp.) which has small pink flowers and



False Indigo

iridescent seed pods which are sometimes referred to as "stick-tights."

Leaving this spot and moving on, I notice a patch of delicate white star-like flowers growing along the side of the road near the edge of the curb. This is carpetweed (*Mollugo verticillata*), sometimes referred to in uncomplimentary terms as the Uriah Heep among weeds. I examine its five, star-like white sepals with my lens and find it hard to understand how it could be so called.

Although we now tend to think more in terms of the roles that plants play in their environments rather than emphasizing just knowing their names, I can't help but think of the following quotation by Richard Jeffries when I look back on the pleasure I have experienced exploring this short road over the years. He wrote, "The first conscious thought about wildflowers was to find out their names--the first conscious pleasure--and then I began to see so many that I had not previously noticed. Once you wish to identify them, there is nothing escapes, down to the little white chickweed of the path and the moss of the wall." ■

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Watching them watching us ...

By Audrey Handelman,
Environmental Intern

An interview with reporter Steve Grant

INTERVIEW: STEVE GRANT, ENVIRONMENTAL REPORTER

Bulletin: As a reporter covering the environment for the "Hartford Courant," how do you go about finding appropriate stories?

Grant: One of the ways I keep in touch with what's going on is by spending time at the DEP offices in Hartford. Sometimes I'll be over there four or five days a week.

Of course, I'm not usually there for very long--about half an hour to 45 minutes usually does it.

Bulletin: What do you do when you're there, and how does it help you?

Grant: I wander around. I stop in at all the major units--water, air, wildlife, forestry... sometimes it's a waste of time, in that I don't find out anything new or interesting. But I never look at it as a waste, because I'm keeping up contact with everyone over there. Then if something does happen, they may think of me first, call me up and give me a good story. If I hear of anything interesting while I'm there, I'll sit down and start asking questions.

Bulletin: Are there any drawbacks to this method of finding stories?

Grant: I have to be careful not to become too friendly

or too personally involved with DEP staff. I have to keep up a good rapport, but I also have to maintain my objectivity so that I can ask the hard questions which sometimes need to be asked, like "Are you really doing your job?" and "Have you neglected to do something you were supposed to be doing?"

Sometimes I get into touchy issues. Most of the time I find out things which aren't likely to cause much controversy, although they're interesting, like when I heard from Paul Herig in Wildlife about the return of the turkey to Connecticut. But there are other things, like the story I did a few months ago about the use of Sevin, that are much more sensitive issues. The State recommended in a press release that Sevin not be used except for large tracts of land. Instead, people should use the biological pesticide Bt. But then the State began spraying its park and forest land with Sevin. Sure, these were large tracts of land, but I felt that they should have set a better example. So I wrote a story about it--there was a case where DEP disagreed with me strongly.

Bulletin: Do you have any other means of finding out about story possibilities?

Grant: I sift through press releases, I make a lot of phone calls. Sometimes people, citizens, will call me and say, "Hey, did you know that someone is dumping barrels of something in such-and-such a place?" Then

I'll go and find out, first, if it's actually happening, and if it is, I'll try to look into who's doing it. DEP doesn't always know about everything that's going on in the environment; if I hear of something, I let them know.

Still, I'd say that my "beat" is very important. That's how you really keep a handle on the latest developments, and in the newspaper business, being there first is what it's all about. Some reporters try to do everything



Reporter Steve Grant covers the environment and energy issues for the "Hartford Courant."

without leaving their desks, and they miss out on a lot.

Bulletin: Do you report exclusively on the environment, or do you cover other areas as well?

Grant: I also cover energy issues. Many times the two overlap. For example, I covered the public hearing on the State's proposed relaxation of regulations regarding the burning of oil--raising the limit on sulfur content from 0.5 percent to one percent. That's an energy issue as well as an environmental one.

Bulletin: Do you often cover public hearings or other government activity such as legislative decisions?

Grant: Fairly often. When the legislature is in session, I sometimes cover congressional races from start to finish or focus on particular issues.

I've covered enough hearings so that I can usually tell beforehand what groups are going to show up and even what positions they'll take. I don't always stay for the whole hearing; I find that the groups which really have something to say and are well-organized get there early.

Hearings can be very dull, but you can't go to them with that attitude. You have to always be on the lookout for leads, for interesting angles. My job depends on covering these issues well. I always try to get the most I can out of a situation, I try to make stories interesting, because that makes the difference between a front page story or one that ends up on page 60. If you go in thinking "this will be boring," chances are that's how your story will turn out.

Bulletin: Are there any special skills or "tricks" you use in covering hearings?

Grant: A lot of speakers prepare written testimony which they read at the hearing. If I can get a copy of the testimony, it saves a lot of note taking.

I also have to communicate with the other "Courant" staff in the press room at the capitol. The press room is filled with people when the legislature is in session. If I don't let them know I'm covering something, we may end up with two people on the same story.

After a while, too, you get to know the people who show up at hearings, especially the environmental reporters from other papers.

Bulletin: Is there a feeling of competition between reporters from various papers?

Grant: Yes, a lot. Everybody wants to have a story before anyone else gets to it. The "Courant" is a statewide paper; we look at the whole state, and anything that happens in Connecticut is worthy of our attention. Some other papers rely on wire services for information about what's happening around the state, and concentrate their energy in terms of reporting on their own circulation area. I've got to keep my eye on everything.

Bulletin: How did you get started in environmental reporting?

Grant: I began ten years ago working for the "Journal-Enquirer" in Manchester--I grew up in Waterbury and went to the University of Connecticut. I started out at the "Journal" by covering a town. That may not sound like much, but it's great experience. . . you get to understand how government works at that level. Actually, there are a lot of really interesting stories to be written about towns, especially if you can relate it to other towns around the state or the country.

A year or two later, I became a general assignment reporter with the "Journal." I did everything. I covered bank robberies and murders, I did some investigative reporting. But my real interest has always been in environmental reporting. I came to the "Courant" a little over a year ago because I felt I needed a change, I needed to

move on. And it's been a great experience.

Bulletin: Do you feel as if you are accomplishing something for the environment through your job?

Grant: Yes. Of course, it doesn't happen every day, but once in a while I'll do a story that I feel particularly good about, or that I think made an impression. Last spring, for example, I worked on an article about acid rain in the northeast. It was a full page in the Sunday edition, and it took me several weeks to research and write it. I don't do that kind of thing very often, and I found this story very gratifying. The time for it was right; acid rain is an issue which concerns everyone in the northeast.

To do research, I travelled from Washington to Canada. I actually hiked around and looked at lakes in Ontario which had been affected, talked to the people who lived around there.

Not everything I do is exciting, though. There's a lot of garbage which has to get done too.

Bulletin: What do you think is the most important thing to keep in mind in your work as an environmental reporter?

Grant: My duty is to the public, to let the public know what's going on out there so they can do something about it. I have a responsibility to report on what is happening in the environment quickly and accurately; the sooner people know about something, the more likely it is they'll be able to do something about it.

Also, I have to be careful, because I'm dealing with bureaucracy so much, that I don't fall into the language of bureaucracy. It's fine for the bureaucracy, but I have to get my information across clearly. If my writing is too complicated or confused with terms and abbreviations, no one will read it. Sometimes I have to do what amounts to a little translating to make stories understandable and readable.



By Leslie Bieber,
Citizens' Participation Coordinator

For Your Information

Flood management workshops

In the wake of last spring's floods, State officials determined that there was a need for public education in the area of flood management. The Department of Environmental Protection (DEP) and the Office of Civil Preparedness (OCP) are sponsoring a workshop, to be held on October 27, which will provide up-to-date information on a variety of flood-related topics.

The workshop has been designed primarily for local officials and their staffs. Representatives from the DEP, OCP, the Federal Emergency Management Agency, the Soil Conservation Service, and the Army Corps of Engineers will hold both panel discussions and round-table mini-workshops. The luncheon address will be delivered by Governor William O'Neill.

The session will be at the Yale Inn in Meriden and will run from 8:30 a.m. to 4:00 p.m. Registration is \$14 per person.■

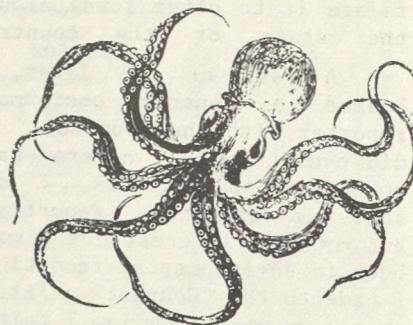
CACIWC annual meeting

The Connecticut Association of Conservation and Inland Wetlands Commissions (CACIWC) is holding its annual dinner meeting Thursday, October 21, at the Yankee Silversmith Inn in Wal-

lingford. Along with the regular business meeting and election of officers, the program will include a discussion of the State's new ground water classification system.

The keynote speaker for the evening will be Alexandria Dawson of Hadley, Massachusetts. Dawson is the Executive Director of the (Massachusetts) Advisory Committee on the MDC Water Supply. She previously worked as an attorney for the Conservation Law Foundation and is currently the First Vice President of the Massachusetts Association of Conservation Commissions.

James Murphy, a Principal Environmental Analyst for the DEP, will discuss the new classification system. He will focus on the Connecticut and Thames river basins, areas for which classification has been completed. Finally, a representative of a municipal planning agency will cover the impact that the new system will have on town planning functions.



The cost of the dinner is \$18. There will be a cash bar from 6:00 to 6:30 p.m., with dinner served immediately after.

If you would like more information on either the Flood Management Workshop or the CACIWC Annual Meeting, please contact:

Leslie Bieber
Information and Education
Department of Environmental Protection
State Office Building
Hartford, CT 06106
(203) 566-3489

Long Island Sound directory available

A new DEP publication can prove helpful to people looking for information on Long Island Sound and its environs. Long Island Sound: A Directory of Natural Resource Information Sources lists federal, state, local, and private organizations which deal with the coast, as well as including educational institutions with marine-oriented courses and other selected information.

The directory was prepared by the Natural Resources Center of the DEP as part of a marine program which includes geological mapping of the Sound. A Bibliography of literature relating to Long Island Sound is available as a companion to the directory. Both will be updated each year.

Copies of both the directory and the bibliography are available to the public. If you are interested in obtaining a copy, please contact:

Ralph Lewis
c/o Marine Sciences Institute
University of Connecticut/Avery Point
Groton, CT 06340
(203) 443-1020 x213

or

Sid Quarrier
Connecticut Geological Survey
Room 561
State Office Building
Hartford, CT 06106
(203) 566-3540

Public Hearings

Ground-and Surface-Water Quality
Classification
Housatonic River Basin
Southwest Coastal Rivers Basin

Public hearing on September 16,
1982, 7:00 p.m. at Newtown Town
Hall (Alexander Room), 45 Main
Street, Newtown, CT

For more information on this sub-
ject, contact Tess Gutowski, Wa-
ter Compliance Unit, Department
of Environmental Protection,
State Office Building, Hartford,
CT 06106; (203) 566-2588.

Maps, reports, and other written
materials on the ground-and sur-
face-water classification system
are available to the public at
the Water Compliance Office on
122 Washington Street. Office
hours are from 8:30 to 4:30 p.m.

Persons unable to attend the
hearing and wishing to submit
written comments should direct
them to Robert Smith, Hearings
Examiner, Water Compliance Unit,
DEP State Office Building,
Hartford, CT 06106

Permits

5/13/82: E/M Lubricants, Inc.,
West Lafayette, Indiana

To discharge pretreated metal
finishing wastewater to the City
of New Britain Sewerage System in
an average daily flow of 7,000
gallons per day. Conditions.

5/13/82: Bicron Electronics
Company, Canaan

To discharge 21,600 gallons per
day of heat pump discharge in the
Town of North Canaan to the
Groundwaters of the Housatonic
River Watershed. Conditions.

5/13/82: Harold Parisen,
Essex

To discharge an average daily
flow of 9,070 gallons per day of
non-contact heating/cooling water
from heat pump to groundwaters in
the watershed of the Connecticut
River. Conditions.

5/13/82: Hull Funeral Service,
New Milford

To discharge non-contact cooling
water to the groundwaters in the
watershed of the Housatonic Ri-
ver in an average daily flow of
10,000 gallons per day. Condi-
tions.

5/13/82: Medallie Art Company,
Danbury

To discharge treated metal fin-
ishing wastewater to the City of
Danbury Sewerage System in an
average batch flow of 2,000 gal-
lons, once per day. Conditions.

5/13/82: Globe Metal Finishing,
Hamden

To discharge 15 gallons per min-
ute of metal plating wastewater
to the Town of Hamden Sewerage
System in an average daily flow
of 15 gallons per minute. Condi-
tions.

5/15/82: Projects, Incorporated,
Glastonbury

To discharge settled vibratory
deburring wastewater to the Town
of Glastonbury Sanitary Sewerage
System in an average daily flow
of 200 gallons per day. Condi-
tions.

5/13/82: Chromalloy Compressor
Services, Turbine Support Divi-
sion, Chromalloy American Corpora-
tion, Manchester

To discharge pretreated metal
finishing wastewaters to the Town
of Manchester Sewerage System in
an average daily flow of 4,500
gallons per day. Conditions.

5/20/82: Seaview at Guilford
Condominium Assoc., Inc.,
Guilford

To discharge 9,000 gallons per
day of domestic sewage to the
groundwaters in the watershed of
East Creek. Conditions.

5/20/82: Aetna Life & Casualty,
Hartford

To discharge domestic sewage to
the City of Middletown Sewerage
System in an average daily flow
of 151,500 gallons per day.
Conditions.

5/20/82: The Bass Plating Com-
pany, Bloomfield

To discharge treated metal fin-
ishing wastewaters to the Metro-
politan District Sewerage System
in the Town of Bloomfield in an
average daily flow of 96,000 gal-
lons per day. Conditions.

5/20/82: The Stanley Sack Co.,
Inc., Bloomfield
To discharge 50 gallons per day
of pretreated oily wastewaters
to the MDC Sanitary Sewerage
System in the Town of Bloomfield.
Conditions.

5/20/82: Sweet Life Foods, Inc.,
Windsor Locks

To discharge vehicle wash water
to the Town of Suffield Sewerage
System in an average daily flow
of 7,500 gallons per day. Con-
ditions.

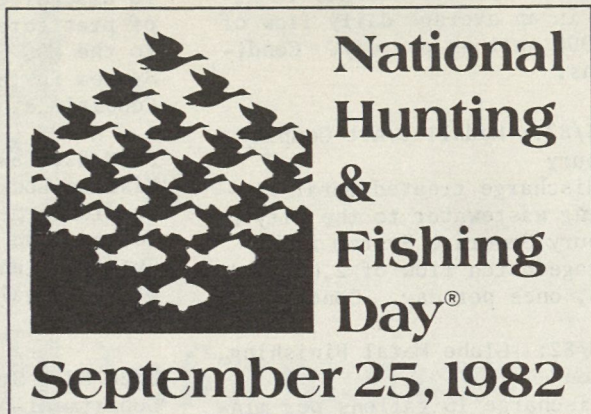
5/20/82: State of Connecticut
Department of Transportation
Wethersfield

To discharge to Baker's Cove in
the Long Island Sound Watershed
in the Town of Groton an average
daily flow of 75,000 gallons per
day of wastewaters. Conditions.

5/20/82: Pratt & Whitney Air-
craft Group, Division of United
Technologies, East Hartford
To operate a landfill site for
the disposal of approximately 25
cubic yards per day of E.C.M.
sludge consisting of metal hy-
droxides and diatomaceous earth
wet brine in the form of a filter
cake with the resultant leachate
discharge to the groundwaters in
the watershed of the Connecticut
River and to operate a landfill
site for the disposal of approxi-
mately 4,000 cubic yards per year
of metal hydroxide sludge and
filter cake with the resultant
discharge of approximately 2,100
gallons per day of leachate to
the groundwaters in the watershed
of the Connecticut River. Con-
ditions.

Events

September 18 and 19, 1982
Small World Film Festival:
American Indian Archaeological
Institute Visitor Center
Route 199, Washington
"Discovering American Indian
Music" will be shown at 11 a.m.
Saturday, September 18, and at
2:30 p.m. Saturday, September 18,
and Sunday, September 19. It
presents the music of tribes from
various areas of the United
States and describes its social
and ceremonial function. Admis-
sion to AIAI is by membership or
donation of \$2/adults and \$1/
children ages 6-18.



Saturday, September 25, 1982, will mark the 11th annual observance of National Hunting and Fishing Day.

The theme of NHF Day this year, "Pass It On," urges the nation's more than 55 million hunters and fishermen to help pass on the outdoor tradition to the millions of young people and

adults who have never had the opportunity to experience the out-of-doors as they have.

National Hunting and Fishing Day was established to give America's sportsmen an opportunity to tell non-sportsmen about conservation and the role hunters and fishermen play in our nation's conservation efforts.

Over the past 10 years, thousands of sportsmen have participated in NHF Day programs designed to help ensure the future of hunting and fishing.

Many people who oppose hunting are non-sportsmen who think America's wildlife is endangered. They may not realize that hunters and fishermen have provided billions of dollars for conservation and wildlife management programs.

According to National Hunting and Fishing Day's organizers, non-sportsmen are twice as likely to support regulated hunting when they learn the facts about conservation, wildlife management, and the contributions sportsmen have made to help restore numerous species of American wildlife to healthy and abundant numbers.

Watch the outdoor columns in your local papers for announcements of National Hunting and Fishing Day activities in your area: pass it on. ■

DEP Citizens' Bulletin

State of Connecticut
Department of Environmental Protection
State Office Building
Hartford, Connecticut 06106

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AT HARTFORD, CONNECTICUT